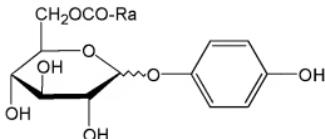


## AMENDMENTS TO THE CLAIMS

1. (Currently amended) An arbutin ester compound represented by formula (1):

Formula (1)



wherein Ra is selected from the group consisting of:

$R_1-CH=CH_2$ , wherein  $R_1$  is a single bond, an unsubstituted alkyl group or an arylene group;



$R_1C=\text{CH}_2$ , wherein  $R_1$  is a single bond, an alkyl group or an arylene group;

$R_1-\text{COOCH}=\text{CH}_2$ , wherein  $R_1$  is a single bond, an alkyl group or an arylene group;

$R_1-\text{COOH}$ , wherein  $R_1$  is a single bond, an alkyl group or an arylene group;

$R_1-\text{COO}-R_2$ , wherein  $R_1$  is a single bond, an alkyl group or an arylene group; and  $R_2$  is an alkyl group or an aryl group; and

$R_1-\text{C}(\text{CH}_3)_3$ , wherein  $R_1$  is a single bond, an alkyl group or an arylene group.

2.10. (Canceled)

11. (Withdrawn): A method of inhibiting tyrosinase comprising, providing as an active ingredient, at least one of the arbutin ester compounds according to claim 1, wherein tyrosinase is inhibited.

12. (Canceled)

13. (Currently amended): A process for producing an arbutin ester compound, comprising the step of carrying out an esterification reaction of arbutin with a carboxylic acid compound represented by one of formulae (11) to (15) or (17):

Formula (11)



wherein A is hydrogen or a substituted or unsubstituted alkyl or vinyl group; and  $R_1$  is a single bond, an unsubstituted alkyl group or an arylene group;

Formula (12)



wherein A is hydrogen or a substituted or unsubstituted alkyl or vinyl group; and R<sub>1</sub> is a single bond, an alkyl group or an arylene group;

Formula (13)



wherein A is hydrogen or a substituted or unsubstituted alkyl or vinyl group; and R<sub>1</sub> is a single bond, an alkyl group or an arylene group;

Formula (14)



wherein A is hydrogen or a substituted or unsubstituted alkyl or vinyl group; and R<sub>1</sub> is a single bond, an alkyl group or an arylene group;

Formula (15)



wherein A is hydrogen or a substituted or unsubstituted alkyl or vinyl group; R<sub>1</sub> is a single bond, an alkyl group or an arylene group; and R<sub>2</sub> is an alkyl group or an aryl group;

Formula (17)



wherein A is hydrogen or a substituted or unsubstituted alkyl or vinyl group; and R<sub>1</sub> is a single bond, an alkyl group or an arylene group.

**14. (Original):** The process according to claim 13, wherein the esterification is carried out in the presence of an enzyme catalyst.

**15. (Original):** The process according to claim 13, wherein the esterification is carried out in the presence of a chemical catalyst.

16. (Original): The process according to claim 13, wherein the esterification is carried out while performing a dehydration treatment.

17. (Original): The process according to claim 13, wherein the esterification reaction step is followed by the steps of:

extracting and isolating unreacted carboxylic acid derivative(s) from the esterification reaction mixture with a nonpolar organic solvent; and subsequently,

adding excess water to extract and isolate unreacted arbutin and to precipitate the arbutin ester compound.

18-36. (Canceled)

37. (Previously presented) A composition comprising an arbutin ester compound according to Claim 1 and a suitable carrier.

38. (Previously presented) An external preparation for the skin comprising the composition according to claim 37.

39. (Currently amended) The arbutin ester compound of Claim 1, wherein -Ra is selected from the group consisting of:

-R<sub>1</sub>-CH=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond, an unsubstituted alkyl group or an arylene group;

-R<sub>1</sub>-C(CH<sub>3</sub>)=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond, an alkyl group or an arylene group;

-R<sub>1</sub>-COOCH=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond, an alkyl group or an arylene group; and

-R<sub>1</sub>-C(CH<sub>3</sub>)<sub>3</sub>, wherein R<sub>1</sub> is a single bond, an alkyl group or an arylene group.

40. (Currently amended) The arbutin ester compound of Claim 1, wherein -Ra is selected from the group consisting of:

-R<sub>1</sub>-CH=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond or an unsubstituted alkyl group having 1 to 16 carbon atoms;

-R<sub>1</sub>-C(CH<sub>3</sub>)=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond;

-R<sub>1</sub>-COOCH=CH<sub>2</sub>, wherein R<sub>1</sub> is an alkyl group having 1 to 16 carbon atoms; and

-R<sub>1</sub>-C(CH<sub>3</sub>)<sub>3</sub>, wherein R<sub>1</sub> is a single bond.

41. (Currently amended) An The arbutin ester compound of Claim 1, wherein the compound is selected from the group consisting of 6-O-acryloyl arbutin, 6-O-methacryloyl arbutin, 6-O-vinyladipoyl arbutin, arbutin 6-O-adipoyl acid ester, 6-O-methyladipoyl arbutin, 6-O-

decenoyl arbutin, 6-O-oleoyl arbutin, 6-O-pivaloyl arbutin, 6-O-benzoyl arbutin, 6-O-butanoyl arbutin, 6-O-lauroyl arbutin, 6-O-stearoyl arbutin, and 6-O-(10-undecylenoyl) arbutin.

42. (Currently amended) The arbutin ester compound of Claim 41 +, wherein the compound is 6-O-(10-undecylenoyl) arbutin.

43. (Currently amended) A composition comprising the arbutin ester compound of Claim 4142 and a suitable carrier.

44. (Previously presented) An external preparation for the skin comprising the composition of claim 43.

45. (Withdrawn- Currently amended) The method of Claim 11, wherein -Ra of the arbutin ester compounds is selected from the group consisting of:

-R<sub>1</sub>-CH=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond, an unsubstituted alkyl group or an arylene group;

-R<sub>1</sub>-C(CH<sub>3</sub>)=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond, an alkyl group or an arylene group;

-R<sub>1</sub>-COOCH=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond, an alkyl group or an arylene group; and

-R<sub>1</sub>-C(CH<sub>3</sub>)<sub>3</sub>, wherein R<sub>1</sub> is a single bond, an alkyl group or an arylene group.

46. (Withdrawn- Currently amended) The method of Claim 11, wherein -Ra of the arbutin ester compounds is selected from the group consisting of:

-R<sub>1</sub>-CH=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond or an unsubstituted alkyl group having 1 to 16 carbon atoms;

-R<sub>1</sub>-C(CH<sub>3</sub>)=CH<sub>2</sub>, wherein R<sub>1</sub> is a single bond;

-R<sub>1</sub>-COOCH=CH<sub>2</sub>, wherein R<sub>1</sub> is an alkyl group having 1 to 16 carbon atoms; and

-R<sub>1</sub>-C(CH<sub>3</sub>)<sub>3</sub>, wherein R<sub>1</sub> is a single bond.

47. (Withdrawn) A method of Claim 11, wherein the arbutin ester compounds are selected from the group consisting of 6-O-acryloyl arbutin, 6-O-methacryloyl arbutin, 6-O-vinyladipoyl arbutin, arbutin 6-O-adipoyl acid ester, 6-O-methyladipoyl arbutin, 6-O-decenoyl arbutin, 6-O-oleoyl arbutin, 6-O-pivaloyl arbutin, 6-O-benzoyl arbutin, 6-O-butanoyl arbutin, 6-O-lauroyl arbutin, 6-O-stearoyl arbutin, and 6-O-(10-undecylenoyl) arbutin.

48. (Withdrawn) The method of Claim 11, wherein said at least one of the arbutin ester compounds is 6-O-(10-undecylenoyl) arbutin.